

**KARAKTERISTIK KIMIA INCEPTISOL PADA BEBERAPA  
UMUR TANAMAN KELAPA SAWIT (*Elaeis guineensis* Jacq.)  
DI NAGARI BAWAN KECAMATAN AMPEK NAGARI  
KABUPATEN AGAM**

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**ABSTRAK**

Nagari Bawan Kecamatan Ampek Nagari Kabupaten Agam merupakan salah satu sentra penghasil kelapa sawit (*Elaeis guineensis* Jacq.) di Sumatera Barat. Variasi umur tanaman kelapa sawit dapat mempengaruhi tingkat kesuburan tanah, yang berdampak pada produktivitas yang dihasilkan. Penelitian ini bertujuan untuk mengkaji dan memetakan karakteristik kimia Inceptisol serta membandingkan manajemen pemupukan pada beberapa umur tanaman kelapa sawit di Nagari Bawan Kecamatan Ampek Nagari Kabupaten Agam. Metode penelitian yang digunakan yaitu metode survei dengan *purposive sampling* berdasarkan umur tanaman (3; 12; 16 dan 20 tahun) pada kelerengan 0-8% dengan dua kedalaman yaitu 0-30 cm dan 30-60 cm. Analisis tanah yang dilakukan meliputi pH (H<sub>2</sub>O), C-organik, N-total, P-tersedia, KTK, K-dd dan C/N. Pembuatan peta tematik sifat kimia tanah dilakukan dengan memasukan data analisis tanah ke ArcGIS. Hasil menunjukkan nilai pH (H<sub>2</sub>O) tertinggi 5.61 dan nilai terendah 5.25. Nilai C-organik tertinggi 3.80% dan nilai terendah 1.71%. Nilai N-total tertinggi 0.22% dan nilai terendah 0.15%. Nilai P-tersedia tertinggi 8.08 ppm dan nilai terendah 5.10 ppm. Nilai KTK tertinggi 23.56 me/100g dan nilai terendah 18.44 me/100g. Nilai K-dd tertinggi 0.26 me/100g dan nilai terendah 0.17 me/100g. Nilai C/N tertinggi 21.11 dan nilai terendah 8.61. Seiring bertambahnya umur tanaman, sifat kimia tanah seperti pH, C-organik, KTK, K-dd dan C/N meningkat, tetapi terjadi penurunan nilai N-total dan P-tersedia.

Kata kunci : Lahan Kelapa Sawit, Sifat Kimia Tanah, Umur Tanaman

# **CHEMICAL CHARACTERISTICS OF INCEPTISOL AT VARIOUS AGES OF OIL PALM (*Elaeis guineensis* Jacq.) IN NAGARI BAWAN, AMPEK NAGARI DISTRICT, AGAM REGENCY**

## **ABSTRACT**

Nagari Bawan Ampek Nagari District, Agam Regency is one of the center for oil palm (*Elaeis guineensis* Jacq.) production in West Sumatera. The age variation of oil palm plants can influence soil fertility, impacting productivity. This study was aimed to examine and map the chemical characteristics of Inceptisol and compare fertilization management at different ages of oil palm in Nagari Bawan, Ampek Nagari District, Agam Regency. The research method employed was a survey with purposive sampling based on plant age (3; 12; 16 and 20 years) on slopes of 0-8% with two soil depths 0-30 cm and 30-60 cm. Soil analyses included pH (H<sub>2</sub>O), organic carbon, total nitrogen, available phosphorus, cation exchange capacity (CEC), exchangeable potassium, and C/N ratio. A thematic map of soil chemical properties was created by inputting soil analysis data into ArcGIS. The results showed that the highest pH (H<sub>2</sub>O) value was 5.61 and the lowest value was 5.25. The highest organic carbon value was 3.80%, and the lowest was 1.71%. The highest total nitrogen value was 0.22%, and the lowest was 0.15%. The highest available phosphorus value was 8.08 ppm, and the lowest was 5.10 ppm. The highest CEC value was 23.56 me/100g, and the lowest was 18.44 me/100g. The highest exchangeable potassium value was 0.26 me/100g, and the lowest was 0.17 me/100g. The highest C/N ratio was 21.11, and the lowest was 8.61. It could be concluded that increased crop age increased the soil chemical properties, especially the soil pH, organic carbon, cation exchange capacity (CEC), exchangeable potassium, and C/N ratio, while total nitrogen and available phosphorus decreased.

Keywords: Oil Palm Land, Soil Chemical Properties, Plant Age